

IN THE CLAIMS:

1. (Currently Amended) A negative pressure utilization type of slider comprising:

a head for ~~performing~~ recording ~~on~~ onto a disk or reproducing from ~~the~~ a disk; and

an air bearing surface ~~formed in a surface for~~ facing ~~the~~ a disk, said air bearing surface comprising by a plurality of generally substantially flat surfaces, said substantially flat surfaces differing in height from each other, for floating from the disk by generating an air flow caused by rotation of the disk when such disk rotates, thereby causing the slider to float over such disk, the generally flat surfaces differing in height from each other,

the air bearing surface having an air inflow surface, a positive pressure generating surface and a negative pressure generating surface, respectively, ~~formed in this order from an air flow incoming side~~ end to an air flow outgoing end of the slider, wherein

the air inflow surface has a groove ~~configuration surface formed from the~~ extending between, and including, a disk inner peripheral end to the and a disk outer peripheral end of the air inflow surface, a bottom surface of the groove configuration surface being lower in height than the air inflow surface relative to a surface opposite the disk-facing surface, the groove being set back from the air flow incoming end, such that it does not contact an edge of the air flow incoming end.

2. (Previously Presented) The slider according to claim 1, wherein the air bearing surface has surfaces of three stages differing in height, the surfaces of the three stages comprising an upper stage surface highest in height, a lower stage surface lowest in height and a middle surface lower than the upper stage surface and higher than the lower stage surface, the positive pressure

generating surface, the air inflow surface and the negative pressure generating surface being formed on the upper stage surface, the middle surface and the lower stage surface, respectively.

3. (Currently Amended) The slider according to claim 1, wherein the bottom surface of the groove configuration surface is ~~formed~~ flush with, and the same height as, the negative pressure generating surface.

4. (Previously Presented) The slider according to claim 1, wherein the air inflow surface extends to the air flow incoming end.

5. (Currently Amended) The slider according to claim 1, wherein the groove ~~configuration surface~~ is ~~distant from the air flow incoming end by~~ located at least 20 μm from the air flow incoming end.

6. (Currently Amended) The slider according to claim 1, wherein the groove ~~configuration surface~~ has a width of at least 30 μm .

7. (Previously Presented) The slider according to claim 1, wherein the head is a magnetic head.

8. (Currently Amended) The slider according to claim 1, wherein the ~~reproducing head is composed of~~ comprises a magnetoresistive element.

9. (Previously Presented) The slider according to claim 1, wherein the air bearing surface has an area of not more than 1 mm^2 .

10. (Previously Presented) The slider according to claim 1, wherein the air bearing surface has an area of not less than 0.5 mm^2 .

11. (Previously Presented) A disk device including the slider according to claim 1.

12. (Previously Presented) The disk device according to claim 11, further including means for recording reproducing or both recording and reproducing in a disk region where a relative speed between the slider and the disk is not higher than 10 m/s.

13. (Previously Presented) The disk device according to claim 11, further including means for recording, reproducing or both recording and reproducing in a disk region where a relative speed between the slider and the disk is not higher than 7 m/s.

14. (Currently Amended) A negative pressure utilization type of slider comprising:

a head for ~~performing recording on~~ onto a disk or reproducing from ~~the~~ a disk; and

an air bearing surface ~~formed in a surface facing the~~ such disk, the air bearing surface comprising by a plurality of generally substantially flat surfaces, said substantially flat surfaces differing in height from each other, for floating from the disk by generating an air flow-caused by rotation of the disk when such disk rotates, thereby causing the slider to float over such disk, the generally flat surfaces differing in height from each other,

the air bearing surface having an air inflow surface, a positive pressure generating surface, and a negative pressure generating surface, respectively, ~~formed in this order from an air flow incoming side~~ end to an air flow outgoing end,

wherein the air inflow surface has a groove ~~configuration surface formed to extend~~ extending from and including a disk inner peripheral end toward a disk outer peripheral end of the air inflow surface, the a bottom surface of the groove configuration surface being lower in height than the air inflow surface relative to a surface opposite the disk-facing surface, the groove being set back from the air flow incoming end, such that it does not contact an edge of the air flow incoming end.

15. (Previously Presented) The slider according to claim 14, wherein the air bearing surface has surfaces of three stages differing in height, the surfaces of the three stages comprising an upper stage surface highest in height, a lower stage surface lowest in height and a middle surface lower than the upper stage surface and higher than the lower stage surface, the positive pressure generating surface, the air inflow surface and the negative pressure generating surface being formed on the upper stage surface, the middle surface and the lower stage surface, respectively.

16. (Currently Amended) The slider according to claim 14, wherein the bottom surface of the groove configuration surface is formed flush with, and the same height as, the negative pressure generating surface.

17. (Previously Presented) The slider according to claim 14, wherein the air inflow surface extends to the air flow incoming end.

18. (Currently Amended) The slider according to claim 14, wherein the ~~groove configuration surface is distant from the air flow incoming end by~~ is located at least 20 μm from the air flow incoming end.

19. (Currently Amended) The slider according to claim 14, wherein the ~~groove configuration surface~~ has a width of at least 30 μm .

20. (Previously Presented) The slider according to claim 14, wherein the head is a magnetic head.

21. (Currently Amended) The slider according to claim 14, wherein the ~~reproducing~~ head is composed of a magnetoresistive element.

22. (Previously Presented) The slider according to claim 14, wherein the air bearing surface has an area of not more than 1 mm^2 .

23. (Previously Presented) The slider according to claim 14, wherein the air bearing surface has an area of not less than 0.5 mm^2 .16.

24. (Previously Presented) A disk device including the slider according to claim 14.

25. (Previously Presented) The disk device according to claim 24, further including means for recording, reproducing or both recording and reproducing in a disk region where a relative speed between the slider and the disk is not higher than 10 m/s.

26. (Previously Presented) The disk device according to claim 24, further including means for recording, reproducing or both recording and reproducing in a disk region where a relative speed between the slider and the disk is not higher than 7 m/s.

27. (Currently Amended) A negative pressure utilization type of slider comprising:

a head for ~~performing~~ recording ~~on~~ onto a disk or reproducing from ~~the~~ a disk; and
an air bearing surface ~~formed~~ in a surface facing ~~the~~ such disk, the air bearing surface comprising by a plurality of generally substantially flat surfaces, said substantially flat surfaces differing in height from each other, for floating from the disk by generating an air flow caused by rotation of the disk when such disk rotates, thereby causing the slider to float over such disk, the generally flat surfaces differing in height from each other,

the air bearing surface having an air inflow surface, a positive pressure generating surface, and a negative pressure generating surface, respectively, ~~formed~~ in this order from an air flow incoming ~~side~~ end to an air flow outgoing end,

wherein the air inflow surface has a groove ~~configuration surface formed to extend~~ extending from and including a disk outer peripheral end toward a disk inner peripheral end of the air inflow surface, a bottom surface of the groove configuration surface being lower in height than the air inflow surface relative to a surface opposite the disk-facing surface, the groove being set back from the air flow incoming end, such that it does not contact an edge of the air flow incoming end.

28. (Previously Presented) The slider according to claim 27, wherein the air bearing surface has surfaces of three stages differing in height, the surfaces of the three stages comprising an upper stage surface highest in height, a lower stage surface lowest in height and a middle surface lower than the upper stage surface and higher than the lower stage surface, the positive pressure generating surface, the air inflow surface and the negative pressure generating surface being formed on the upper stage surface, the middle surface and the lower stage surface, respectively.

29. (Currently Amended) The slider according to claim 1, wherein the bottom surface of the groove configuration surface is formed flush with, and the same height as, the negative pressure generating surface.

30. (Previously Presented) The slider according to claim 27, wherein the air inflow surface extends to the air flow incoming end.

31. (Currently Amended) The slider according to claim 27, wherein the groove ~~configuration surface~~ is ~~distant from the air flow incoming end by~~ located at least 20 μm from the air flow incoming end.

32. (Currently Amended) The slider according to claim 27, wherein the groove ~~configuration surface~~ has a width of at least 30 μm .

33. (Previously Presented) The slider according to claim 27, wherein the head is a magnetic head.

34. (Currently Amended) The slider according to claim 27, wherein the ~~reproducing~~ head is ~~composed of~~ comprises a magnetoresistive element.

35. (Previously Presented) The slider according to claim 27, wherein the air bearing surface has an area of not more than 1 mm^2 .

36. (Previously Presented) The slider according to claim 27, wherein the air bearing surface has an area of not less than 0.5 mm^2 .

37. (Previously Presented) A disk device including the slider according to claim 27.

38. (Previously Presented) The disk device according to claim 37, further including means for recording, reproducing or both recording and reproducing in a disk region where a relative speed between the slider and the disk is not higher than 10 m/s.

39. (Previously Presented) The disk device according to claim 37, further including means for recording, reproducing or both recording and reproducing in a disk region where a relative speed between the slider and the disk is not higher than 7 m/s.